

L7 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2001 ACS
 AB The title compds. (I) [wherein n = 0-2; m = 1 or 2; X = S or O; Y = O, S, SO, or SO₂; R₁ = H or CO₂R₃, tetrazolyl, 3-hydroxyoxazolyl, 3-hydroxyisothiazolyl, 3-hydroxypyrazolyl, 3-hydroxy-1,2,4-oxadiazolyl, 2-thio-1,3,4-oxadiazolyl, 2-hydroxyoxazolyl, 2-hydroxythiazolyl, etc.; R₂ = H, alkyl, OH, or NR₇R₈; R₃ = H (ar)alkyl, or alkylcarbonyloxy(ar)alkyl; R₄-R₆ = independently H, trihalomethyl, (ar)alkyl, (hetero)aryl, OH, oxo, carboxy(alkyl), alkyloxycarbonyl, alkoxy(alkyl), (ar)alkyloxyalkyl, thio, alkylthio, (un)substituted amino, acyl, alkylcarbonylamino(alkyl), etc.; R₇ and R₈ = independently H, (ar)alkyl, aryl, (ar)alkylcabonyl, arylcarbonyl, or (ar)alkylcarboxy; or R₇ and R₈ together with the N to which they are attached form an (un)substituted mono-, bi-, or tricyclic ring system contg. 0-3 heteroatoms; or R₇ and R₈ = independently a 5-7 membered amine, imide, or lactam] were prepd. as inhibitors of protein tyrosine phosphatases (PTPases), such as PTP1B, CD45, SHP-1, SHP-2, PTP.alpha., LAR, and HePTP. For example, 5-(4-benzyloxy-1,3-dioxo-1,3-dihydroisindol-2-ylmethyl)-2-(tert-butoxyoxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid tert Bu ester was debenzylated using Pd/C in EtOAc (67%) and deesterified using 25% TFA in CH₂Cl₂ to afford II (72%). In a study evaluating for biol. activity against a truncated form of PTP1B, II inhibited PTP1B with a K_i of 1.5 .mu.M. I are useful in the treatment of type I diabetes, type II diabetes, impaired glucose tolerance, insulin resistance, obesity, and other diseases (no data).

AN 2001:208280 CAPLUS

DN 134:252328

TI Preparation of 2-(oxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acids as protein tyrosine phosphatase inhibitors

IN Andersen, Henrik Sune; Hansen, Thomas Kruse; Lau, Jesper; Moller, Niels Peter Hundahl; Olsen, Ole Hvilsted; Axe, Frank Urban; Ge, Yu; Holsworth, Daniel Dale; Jones, Todd Kevin; Judge, Luke Milburn; Ripka, William Charles; Shapira, Barry Zvi; Uyeda, Roy Teruyuki

PA Novo Nordisk A/S, Den.; Ontogen Corporation

SO PCT Int. Appl., 147 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2001019831 | A1 | 20010322 | WO 2000-DK503 | 20000911 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |

PRAI DK 1999-1278 A 19990910

OS MARPAT 134:252328

TI Preparation of 2-(oxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acids as protein tyrosine phosphatase inhibitors

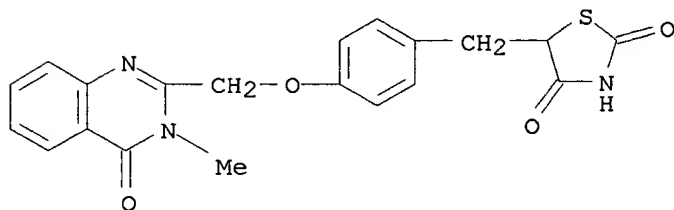
IT **199113-98-9**, 5-[[4-[[3-Methyl-4-oxo-3,4-dihydro-2-quinazolinyl]methoxy]phenyl]methyl]thiazolidine-2,4-dione
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (insulin sensitizer; combination therapy comprising insulin sensitizers)

and 2-(oxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid

PTP1B inhibitors)

RN 199113-98-9 CAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 7

RE

- (1) Bristol-Myers Company; GB 1583679 A 1981 CAPLUS
 - (2) Iversen, L; The Journal of Biological Chemistry 2000, V275(14), P10300 CAPLUS
 - (3) Novo Nordisk AS; WO 9946237 A1 1999 CAPLUS
 - (4) Novo Nordisk AS; WO 9946267 A1 1999 CAPLUS
 - (5) Novo Nordisk AS; WO 9946268 A1 1999 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2001 ACS

AB The title compds. (I) [wherein n = 0-2; m = 1 or 2; X = S or O; Y = O, S, SO, or SO₂; R₁ = H or CO₂R₃, tetrazolyl, 3-hydroxyoxazolyl, 3-hydroxyisothiazolyl, 3-hydroxypyrazolyl, 3-hydroxy-1,2,4-oxadiazolyl, 2-thio-1,3,4-oxadiazolyl, 2-hydroxyoxazolyl, 2-hydroxythiazolyl, etc.; R₂ = H, alkyl, OH, or NR₇R₈; R₃ = H (ar)alkyl, or alkylcarbonyloxy(ar)alkyl; R₄-R₆ = independently H, trihalomethyl, (ar)alkyl, (hetero)aryl, OH, oxo, carboxy(alkyl), alkyloxycarbonyl, alkoxy(alkyl), (ar)alkyloxyalkyl, thio, alkylthio, (un)substituted amino, acyl, alkylcarbonylamino(alkyl), etc.; R₇ and R₈ = independently H, (ar)alkyl, aryl, (ar)alkylcarbonyl, arylcarbonyl, or (ar)alkylcarboxy; or R₇ and R₈ together with the N to which they are attached form an (un)substituted mono-, bi-, or tricyclic ring system contg. 0-3 heteroatoms; or R₇ and R₈ = independently a 5-7 membered amine, imide, or lactam] were prepd. as inhibitors of protein tyrosine phosphatases (PTPases), such as PTP1B, CD45, SHP-1, SHP-2, PTP.alpha., LAR, and HePTP. For example, reaction of 2-bromomethyl-3-methoxymethoxybenzoic acid Me ester (prepn. given) with 2-amino-5-aminomethyl-6-(4-methoxybenzyl)-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acid tert-Bu ester, amidation using imidazol-1-yloxoacetic acid tert-Bu ester, debenzylation using Pd/C and 10% formic acid in MeOH, and deesterification with 30% TFA afforded II.bul.xTFA (90%). In a study evaluating for biol. activity against a truncated form of PTP1B, II inhibited PTP1B with a K_i of 250 nM. I are useful in the treatment of type I diabetes, type II diabetes, impaired glucose tolerance, insulin resistance, obesity, and other diseases (no data).

AN 2001:208279 CAPLUS

DN 134:252327

TI Preparation of 2-(oxalylamino)-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acids as protein tyrosine phosphatase inhibitors

IN Andersen, Henrik Sune; Hansen, Thomas Kruse; Lau, Jesper; Moller, Niels Peter Hundahl; Olsen, Ole Hvilsted; Axe, Frank Urban; Ge, Yu; Holsworth, Daniel Dale; Jones, Todd Kevin; Judge, Luke Milburn; Ripka, William Charles; Shapira, Barry Zvi; Uyeda, Roy Teruyuki

PA Novo Nordisk A/S, Den.; Ontogen Corp.

SO PCT Int. Appl., 150 pp.

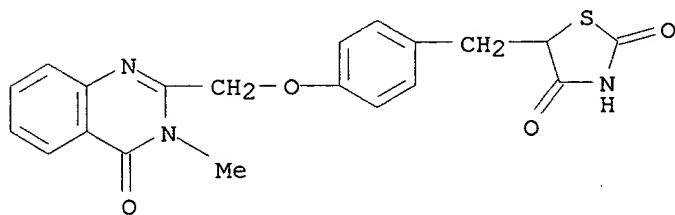
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001019830 | A1 | 20010322 | WO 2000-DK502 | 20000911 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | DK 1999-1277 | A | 19990910 | | |
| | DK 2000-1069 | A | 20000707 | | |
| OS | MARPAT 134:252327 | | | | |
| TI | Preparation of 2-(oxalylamino)-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acids as protein tyrosine phosphatase inhibitors | | | | |
| IT | 199113-98-9 | | | | |
| | RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (insulin sensitizer; combination therapy comprising insulin sensitizers and 2-(oxalylamino)-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acid PTP1B inhibitors) | | | | |
| RN | 199113-98-9 CAPLUS | | | | |
| CN | 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME) | | | | |



RE.CNT 7

RE

- (1) Bristol-Myers Company; GB 1583679 A 1981 CAPLUS
 - (2) Iversen, L; THE JOURNAL OF BIOLOGICAL CHEMISTRY 2000, V275(14), P10300 CAPLUS
 - (3) Novo Nordisk AS; WO 9946237 A1 1999 CAPLUS
 - (4) Novo Nordisk AS; WO 9946267 A1 1999 CAPLUS
 - (5) Novo Nordisk AS; WO 9946268 A1 1999 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2001 ACS

AB The present invention provides a method of inhibiting protein tyrosine phosphatases (PTPases, PTPs), such as PTP1B, TC-PTP, CD45, SHP-1, PTP.alpha., PTP.epsilon., PTP.beta., PTP D1, PTP D2, PTPH1, and PTP-LAR, by administration of compds. which have structural, phys., and spatial characteristics that allow them to interact with an aspartic acid residue at position 48 of PTP1B and/or TC-PTP. Preps. for over 100 thieno[2,3-c]pyrans and thieno[2,3-c]pyridines (I) [wherein n = 0-2; m = 0-2; and m = n .gtoreq. 1; X = S, O, NR8; Y = NR8, O, S, SO, SO2; R1 = H, CO2R3, or a 5-membered heterocycle such as tetrazolyl, 3-hydroxyisoxazolyl, 3-hydroxyisothiazolyl, 3-hydroxypyrazolyl, 2-(hydroxy or thio)-1,3,4-oxadiazolyl, 2-oxoimidazolyl, etc.; R2 = H, alkyl, OH, or NR9R10; R3 = H, (ar)alkyl, or alkylcarbonyloxy(ar)alkyl; R4 - R6 = independently H, trihalomethyl, (ar)alkyl, aryl, OH, oxo, CO2H, carboxyalkyl, (ar)alkyloxycarbonyl, alkylaminoalkyl,

(ar)alkylcarbonylamino, etc.; R8 - R10 = independently H or (un)substituted (ar)alkyl, aryl, (ar)alkylcarbonyl, arylcarbonyl, or (ar)alkylcarboxy; or R9 and R10 together with the N to which they are attached form an (un)substituted cyclic, bicyclic, or tricyclic ring system contg. 0-3 heteroatoms; or R9 and R10 = independently a 5-7 membered cyclic amine, imide, or lactam] and structural-based PTPase inhibition data are included. For example, 5-(4-benzyloxy-1,3-dioxo-1,3-dihydroisoindol-2-ylmethyl)-2-(tert-butoxyoxalylamino)-4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid tert-Bu ester was debenzylated using Pd/C and treated with 25% TFA in CH₂Cl₂ to give II. II showed potency against PTP1B, PTP.alpha. D1, PTP.epsilon. D1, PTP.beta., and CD45 D1D2 with K_i values (.mu.M) of 1.9, 93, 11, 1.1, and 130, resp. I are indicated in the management or treatment of a broad range of diseases

such

as autoimmune diseases, acute and chronic inflammation, osteoporosis, various forms of cancer and malignant diseases, and type I diabetes and type II diabetes (no data). In addn., I are useful in the isolation of PTPases and in elucidation of their biol. function.

AN 2001:185561 CAPLUS

DN 134:237465

TI Method of inhibiting protein tyrosine phosphatases with an aspartic acid residue at position 48

IN Andersen, Henrik Sune; Hansen, Thomas Kruse; Iverson, Lars Fogh; Lau, Jesper; Moller, Niels Peter Hundahl; Olsen, Ole Hvilsted; Axe, Frank Urban; Ge, Yu; Holsworth, Daniel Dale; Jones, Todd Kevin; Judge, Luke Milburn; Ripka, William Charles; Shapira, Barry Zvi; Uyeda, Roy Teruyuki

PA Novo Nordisk A/S, Den.; Ontogen Corp.

SO PCT Int. Appl., 644 pp.

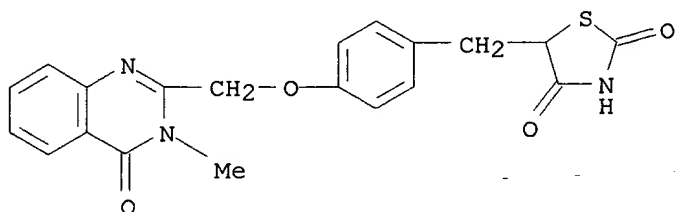
CODEN: PIXXD2

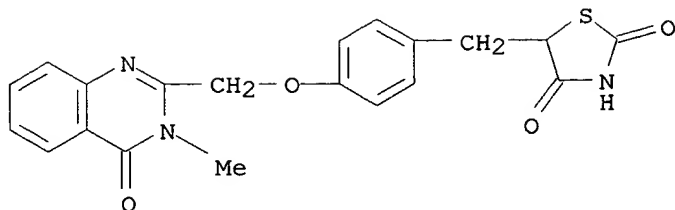
DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2001017516 | A2 | 20010315 | WO 2000-US24761 | 20000911 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | DK 1999-1279 | A | 19990910 | | |
| | US 1999-156641 | P | 19990929 | | |
| TI | Method of inhibiting protein tyrosine phosphatases with an aspartic acid residue at position 48 | | | | |
| IT | 199113-98-9 , 5-[[4-[[3-Methyl-4-oxo-3,4-dihydro-2-quinazolinyl]methoxy]phenyl]methyl]thiazolidine-2,4-dione | | | | |
| | RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | | |
| | (insulin sensitizer; compns. contg. insulin sensitizers and selective inhibitors of protein tyrosine phosphatases) | | | | |
| RN | 199113-98-9 CAPLUS | | | | |
| CN | 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME) | | | | |





L7 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2001 ACS

AB The present invention provides a new stable pharmaceutical compn. contg. 5-[[4-[[3-Methyl-4-oxo-3,4-dihydro-2-quinazolinyl]methoxy]phenyl-methyl]thiadiazolidine-2,4-dione (I) as active ingredient for the treatment of type-2 diabetes. A tablet contained I potassium salt 9, microcryst. cellulose 20, lactose 66, magnesium stearate 0.5, and talc 4.5%.

AN 2000:383924 CAPLUS

DN 133:34424

TI New pharmaceutical composition containing thiadiazolidine derivatives for the treatment of type-2 diabetes

IN Weibel, Helle; Hjorth, Thyge Borup

PA Novo Nordisk A/S, Den.; Reddy's Research Foundation

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2000032191 | A1 | 20000608 | WO 1999-DK663 | 19991129 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |

PRAI DK 1998-1580 A 19981201

TI New pharmaceutical composition containing thiadiazolidine derivatives for the treatment of type-2 diabetes

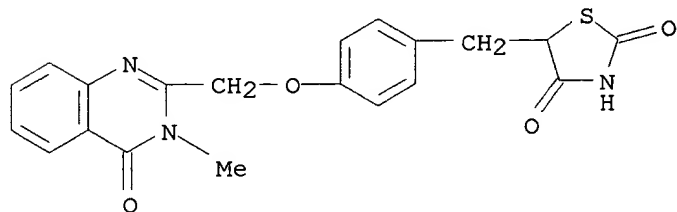
IT 199113-98-9

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(new pharmaceutical compn. contg. thiadiazolidine derivs. for treatment of type-2 diabetes)

RN 199113-98-9 CAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 2

RE

- (1) Boehringer Ingelheim Pharma Kg; EP 0945134 A1 1999 CAPLUS
(2) The Procter & Gamble Company; WO 9217161 A1 1992 CAPLUS

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2001 ACS

AB The title compd. 5-[4-[(3-methyl-4-oxo-3,4-dihydroquinazolin-2-yl)methoxy]benzyl]thiazolidine-2,4-dione (I), useful as antidiabetic agent

(no data), was prepd. by reducing the compd. II (R = alkyl) over Raney Ni or Mg in Cl-4 alc. or mixts. thereof, if desired reesterifying using

H2SO4

at a temp. 0-60.degree., hydrolyzing the resulting compd. III, and condensing the acid IV with N-Me anthranilamide directly without any preactivation, and if desired, converting the compd. I to

pharmaceutically

acceptable salts thereof by conventional methods.

AN 2000:191085 CAPLUS

DN 132:222546

TI An improved process for the preparation of thiazolidine-2,4-dione derivatives

IN Chebiyyam, Prabhakar; Potlapally, Rajender Kumar; Gade, Chinna Bakki Reddy; Satish, Balaram Mahanti; Mamillapalli, Ramabhadra Sarma; Gaddam,

Om

Reddy

PA Reddy's Research Foundation, India

SO PCT Int. Appl., 49 pp.

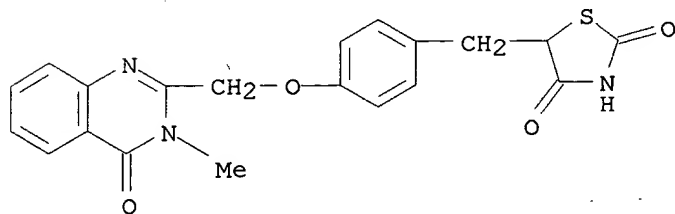
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|--|----------|-----------------|----------|
| PI | WO 2000015638 | A1 | 20000323 | WO 1999-IB1530 | 19990910 |
| | W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | AU 9954399 | A1 | 20000403 | AU 1999-54399 | 19990910 |
| PRAI | IN 1998-MA20 | 0 | 19980914 | | |
| | WO 1999-IB1530 | W | 19990910 | | |
| OS | CASREACT 132:222546; MARPAT 132:222546 | | | | |
| TI | An improved process for the preparation of thiazolidine-2,4-dione derivatives | | | | |
| IT | 199113-98-9P | | | | |
| | RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) | | | | |
| | (an improved process for the prepn. of thiazolidine-2,4-dione derivs.) | | | | |
| RN | 199113-98-9 CAPLUS | | | | |
| CN | 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME) | | | | |



RE.CNT 5

RE

- (1) Beecham Group Plc; EP 0306228 A 1989 CAPLUS
- (2) Reddy S Research Foundation; WO 9741097 A 1997 CAPLUS
- (3) Robertson, D; JOURNAL OF ORGANIC CHEMISTRY 1956, V21, P1190 CAPLUS
- (4) Sankyo Co; EP 0454501 A 1991 CAPLUS
- (5) Ss Pharmaceutical Co; EP 0787727 A 1997 CAPLUS

L7 ANSWER 6 OF 12 USPATFULL

AB The present invention relates to novel antidiabetic compounds, their tautomeric forms, their derivatives, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates and pharmaceutically acceptable compositions containing them. This invention particularly relates to novel azolidinedione derivatives of the general formula (I), and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates and pharmaceutical compositions containing them ##STR1##

AN 2000:117907 USPATFULL

TI Heterocyclic compounds, process for their preparation and pharmaceutical

compositions containing them and their use in the treatment of diabetes and related diseases

IN Lohray, Vidya Bhushan, Hyderabad, India
Lohray, Braj Bhushan, Hyderabad, India
Paraselli, Rao Bheema, Hyderabad, India
Gurram, Ranga Madhavan, Hyderabad, India
Ramanujam, Rajagopalan, Hyderabad, India
Chakrabarti, Ranjan, Hyderabad, India
Pakala, Sarma K.S., Hyderabad, India

PA Dr. Reddy's Research Foundation, Hyderabad, India (non-U.S. corporation)

Reddy-Cheminor Inc., Ridgewood, NJ, United States (U.S. corporation)

PI US 6114526 20000905

AI US 1999-353286 19990714 (9)

RLI Continuation of Ser. No. US 1996-777627, filed on 31 Dec 1996, now patented, Pat. No. US 5885997 76 Ser. No. US 1997-884816, filed on 30 Jun 1997

PRAI IN 1996-115096 19960701

DT Utility

EXNAM Primary Examiner: Dees, Jose' G.; Assistant Examiner: Qazi, Sabiha N.

LREP Ladas & Parry

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2583

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Heterocyclic compounds, process for their preparation and pharmaceutical

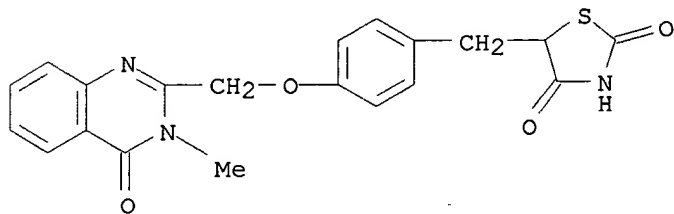
compositions containing them and their use in the treatment of diabetes and related diseases

IT 199113-98-9P

(prepn. of thiazolidinediones and analogs as antidiabetics)

RN 199113-98-9 USPATFULL

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl)methyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 7 OF 12 USPATFULL

AB The present invention relates to novel antidiabetic compounds, their tautomeric forms, their derivatives, their analogues, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates and pharmaceutically acceptable compositions containing them. This invention particularly relates to novel azolidinediones of the general formula (I), their analogues, their derivatives, their tautomeric forms, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, pharmaceutically acceptable solvates and pharmaceutical compositions containing them. ##STR1##

AN 2000:24647 USPATFULL

TI Heterocyclic compounds having antidiabetic hypolipidemia and antihypertensive properties, process for their preparation and pharmaceutical compositions containing them

IN Lohray, Vidya Bhushan, Jubilee Hills, India

Lohray, Braj Bhushan, Jubilee Hills, India

Paraselli, Rao Bheema, Hyderabad, India

Ramanujam, Rajagopalan, Hyderabad, India

Chakrabarti, Ranjan, Hyderabad, India

PA Dr. Reddy's Research Foundation, Hyderabad, India (non-U.S. corporation)

Reddy-Cheminor, Inc., Ridgewood, NJ, United States (U.S. corporation)

PI US 6030973 20000229

AI US 1998-135566 19980817 (9)

RLI Division of Ser. No. US 1997-982911, filed on 2 Dec 1997, now abandoned

PRAI IN 1997-77197 19970415

DT Utility

EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Kessinger, Ann M.

LREP Ladas & Parry

CLMN Number of Claims: 22

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1783

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

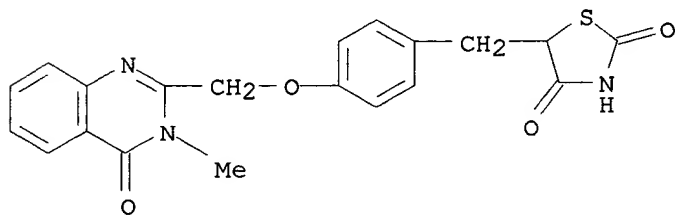
TI Heterocyclic compounds having antidiabetic hypolipidemia and antihypertensive properties, process for their preparation and pharmaceutical compositions containing them

IT 199113-98-9

(prepn. and pharmacol. activity of benzoquinazolinonyl- and benzoxazinonylmethoxybenzylthiazolidinediones)

RN 199113-98-9 USPATFULL

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl)methyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 8 OF 12 USPATFULL

AB The present invention relates to novel antidiabetic compounds, their tautomeric forms, their analogues, their derivatives, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates and pharmaceutically acceptable compositions containing them. This invention particularly relates to novel azolidinedione compounds of the general formula (I),

and their analogues, their derivatives, their tautomeric forms, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, pharmaceutically acceptable solvates and pharmaceutical compositions containing them. ##STR1##

AN 2000:1879 USPATFULL

TI Heterocyclic compounds having antidiabetic hypolipidemic antihypertensive properties process for their preparation and pharmaceutical compositions containing them

IN Lohray, Vidya Bhushan, Hyderabad, India
Lohray, Braj Bhushan, Hyderabad, India
Gurram, Ranga Madhavan, Hyderabad, India
Ramanujam, Rajagopalan, Hyderabad, India
Chakrabarti, Ranjan, Hyderabad, India

PA Dr. Reddy's Research Foundation, Hyderabad, India (non-U.S. corporation)
Reddy-Cheminor, Inc., Ridgewood, NJ, United States (U.S. corporation)

PI US 6011036 20000104

AI US 1997-982962 19971202 (8)

PRAI IN 1997-77197 19970415

DT Utility

EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Kessinger, Ann M.

LREP Ladas & Parry

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1622

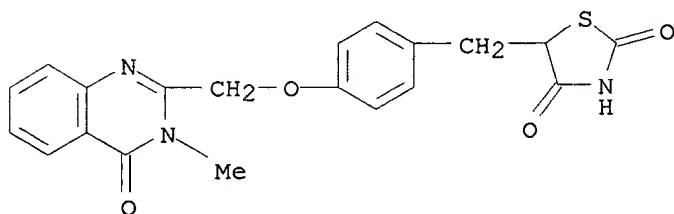
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Heterocyclic compounds having antidiabetic hypolipidemic antihypertensive properties process for their preparation and pharmaceutical compositions containing them

IT 199113-98-9
(prepn. and pharmacol. activity of benzoquinazolinonyl- and benzoxazinonylmethoxybenzylthiazolidinediones)

RN 199113-98-9 USPATFULL

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl)methyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1

AB The title compds. [I; one of X, Y, Z = C(O), C(S) and one of the remaining
of X, Y, Z = C and the other C:C; R1-R3 = H, halo, OH, etc.; n = 1-4; Ar
= (un)substituted divalent aryl, heteroaryl; R4 = H, halo, alkyl or forms a bond together with the adjacent group A; A = N, CR5 (wherein R5 = H, halo, alkyl or R5 forms a bond together with R4); B = O, S when A = CR5 and B = O when A = N], novel antidiabetic compds., were prepd. and formulated. Thus, reacting 4-[2-(2-ethyl-4-methyl-6-oxo-1,6-dihydro-1-pyrimidinyl)ethoxy]benzaldehyde (prepn. given) with thiazolidine-2,4-dione afforded II which showed 67% max. redn. in blood glucose level at 100 mg/kg/day (6 days treatment). in mice.

AN 1999:733038 CAPLUS

DN 131:351343
 TI Preparation of heterocyclic compounds for the treatment of diabetes and related diseases
 IN Lohray, Vidya Bhushan; Lohray, Braj Bhushan; Paraselli, Rao Bheema; Gurram, Ranga Madhavan; Ramanujam, Rajagopalan; Chakrabarti, Ranjan; Pakala, Sarma K. S.
 PA Reddy's Research Foundation, India; Reddy-Cheminor Inc.
 SO U.S., 35 pp., Cont.-in-part of U.S. 5,885,997.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5985884 | A | 19991116 | US 1997-884816 | 19970630 |
| | US 5885997 | A | 19990323 | US 1996-777627 | 19961231 |
| | US 6114526 | A | 20000905 | US 1999-353286 | 19990714 |
| PRAI | IN 1996-MA1150 | A | 19960701 | | |
| | US 1996-777627 | A2 | 19961231 | | |
| | US 1997-884816 | A | 19970630 | | |

OS MARPAT 131:351343

TI Preparation of heterocyclic compounds for the treatment of diabetes and related diseases

IT **199113-98-9P**

RL: BAC (Biological activity or effector, except adverse); RCT

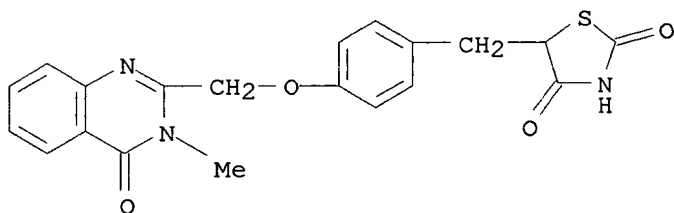
(Reactant);

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic compds. for the treatment of diabetes and related diseases)

RN 199113-98-9 CAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 84

RE

(1) Ainsworth; US 5153210 1992 CAPLUS

(2) Anon; JP 09-12575 A CAPLUS

(3) Anon; AU 570067 CAPLUS

(5) Anon; 1980 CAPLUS

(7) Anon; EP 0139421 1985 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2

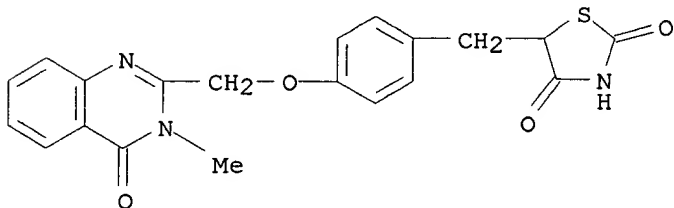
AB The present invention relates to novel antidiabetic compds., their tautomeric forms, their derivs., their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable

solvates and pharmaceutically acceptable compns. contg. them. This invention particularly relates to novel azolidinedione derivs., and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates and pharmaceutical compns. contg. them. Approx. 30 title compds. such as I (R = Pr, Me, Et, Bu, benzyl) and their quinazoline analogs were prepd. in 66-99% yields, e.g., by condensation of aldehydes II with thiazolidine-2,4-dione. Antidiabetic data was given for several of the

prepd. compds. At 30 mg/kg/day, after 6 days,
 5-[4-[2-[2-ethyl-4-methyl-6-oxo-1,5-dihydro-1-pyrimidinyl]ethoxy]phenylmethyl] thiazolidine-2,4-dione
 reduced the blood glucose level 73%, lowered triglycerides 70% and also
 lowered cholesterol in the rat.

AN 1999:212642 CAPLUS
 DN 130:223293
 TI Heterocyclic compounds, process for their preparation and pharmaceutical
 compositions containing them and their use in the treatment of diabetes
 and related diseases
 IN Lohray, Vidya Bhushan; Lohray, Braj Bhushan; Paraselli, Rao Bheema
 PA Reddy's Research Foundation, India; Reddy-Cheminor, Inc.
 SO U.S., 26 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--|-----------------|----------|
| PI | US 5885997 | A | 19990323 | US 1996-777627 | 19961231 |
| | CA 2258949 | AA | 19971106 | CA 1997-2258949 | 19970630 |
| | WO 9741097 | A2 | 19971106 | WO 1997-US11522 | 19970630 |
| | W: | | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW | | |
| | RW: | | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | |
| | AU 9737198 | A1 | 19971119 | AU 1997-37198 | 19970630 |
| | US 5985884 | A | 19991116 | US 1997-884816 | 19970630 |
| | EP 958296 | A1 | 19991124 | EP 1997-934041 | 19970630 |
| | R: | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | |
| | BR 9711098 | A | 20000308 | BR 1997-11098 | 19970630 |
| | CN 1275982 | A | 20001206 | CN 1997-195778 | 19970630 |
| | NO 9806055 | A | 19981222 | NO 1998-6055 | 19981222 |
| | US 6114526 | A | 20000905 | US 1999-353286 | 19990714 |
| PRAI | IN 1996-MA1150 | A | 19960701 | | |
| | US 1996-777627 | A | 19961231 | | |
| | US 1997-884816 | A | 19970630 | | |
| | WO 1997-US11522 | W | 19970630 | | |
| OS | MARPAT 130:223293 | | | | |
| TI | Heterocyclic compounds, process for their preparation and pharmaceutical compositions containing them and their use in the treatment of diabetes and related diseases | | | | |
| IT | 199113-98-9P RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. of pyrimidinylethoxybenzylthiazolidinediones) | | | | |
| RN | 199113-98-9 CAPLUS | | | | |
| CN | 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME) | | | | |



RE.CNT 57

RE

- (1) Anon; EP 008203 A 1980 CAPLUS
- (2) Anon; EP 155845 A 1985 CAPLUS
- (4) Anon; AU 570067 1985 CAPLUS
- (6) Anon; EP 0207581 1987 CAPLUS
- (7) Anon; EP 0236624 1987 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2001 ACS

AB Title compds. such as I (R = H, Me, Et; X = O, NR1; R1 = H, Me, Et) were prepd. in 23-82% yields by cyclization of o-HXC6H4CONH2 with acetals such as II.

AN 1998:682388 CAPLUS

DN 129:290130

TI Substituted thiazolidinediones having antidiabetic, hypolipidemia and antihypertensive properties

IN Lohray, Vidya Bhushan; Lohray, Braj Bhushan; Paraselli, Rao Bheema; Ramanujam, Rajagopalan; Chakrabarti, Ranjan

PA Reddy's Research Foundation, India; Reddy-Cheminor Inc.

SO PCT Int. Appl., 75 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|--|----------|-----------------|----------|
| PI | WO 9845291 | A1 | 19981015 | WO 1998-US7284 | 19980410 |
| | W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| | AU 9871097 | A1 | 19981030 | AU 1998-71097 | 19980410 |
| | EP 1036075 | A1 | 20000920 | EP 1998-918108 | 19980410 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| | US 6030973 | A | 20000229 | US 1998-135566 | 19980817 |
| PRAI | US 1997-982911 | A | 19971202 | | |
| | IN 1997-MA771 | A | 19970415 | | |
| | WO 1998-US7284 | W | 19980410 | | |

OS MARPAT 129:290130

TI Substituted thiazolidinediones having antidiabetic, hypolipidemia and antihypertensive properties

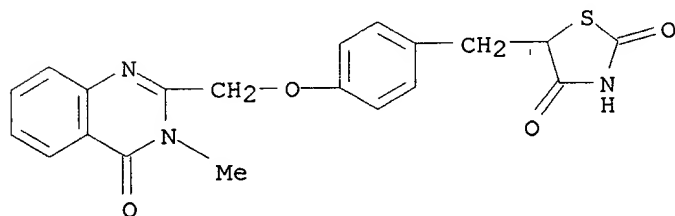
IT 199113-98-9

RL: RCT (Reactant)

(prepn. and pharmacol. activity of benzoquinazolinonyl- and benzoxazinonylmethoxybenzylthiazolidinediones)

RN 199113-98-9 CAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyl)methoxy]phenyl)methyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2001 ACS
 AB Title compds. [I; A = N, CR5; B = O or S; R = CHR4ZO(CH2)nR1; R1 = (un)substituted pyrimidinyl, -quinazoliny, etc.; R4,R5 = H, halo, alkyl; R4R5 = bond; Z = divalent arom. or heterocyclic group; n = 1-4] were prepd. Thus, 4-methyl-2-propyl-1,6-dihydro-6-pyrimidinone was N-alkylated by 4-(BrCH2CH2O)C6H4CHO and the product condensed with thiazolidine-2,4-dione to give, after hydrogenation, title compd. II. Data for biol. activity of I were given.
 AN 1997:740205 CAPLUS
 DN 128:13282
 TI Preparation of thiazolidinediones and analogs as antidiabetics
 IN Lohray, Vidya Bhushan; Lohray, Braj Bhushan; Paraselli, Rao Bheema; Gurram, Ranga Madhavan; Ramanujam, Rajagopalan; Chakrabarti, Ranjan; Pakala, Sarma K. S.
 PA Dr. Reddy's Research Foundation, India; Reddy-Cheminor, Inc.
 SO PCT Int. Appl., 112 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9741097 | A2 | 19971106 | WO 1997-US11522 | 19970630 |
| | W: | | | | |
| | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW | | | | |
| | RW: | | | | |
| | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | US 5885997 | A | 19990323 | US 1996-777627 | 19961231 |
| | AU 9737198 | A1 | 19971119 | AU 1997-37198 | 19970630 |
| | EP 958296 | A1 | 19991124 | EP 1997-934041 | 19970630 |
| | R: | | | | |
| | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| | BR 9711098 | A | 20000308 | BR 1997-11098 | 19970630 |
| | NO 9806055 | A | 19981222 | NO 1998-6055 | 19981222 |
| PRAI | US 1996-777627 | A | 19961231 | | |
| | IN 1996-MA1150 | A | 19960701 | | |
| | WO 1997-US11522 | W | 19970630 | | |

OS MARPAT 128:13282

TI Preparation of thiazolidinediones and analogs as antidiabetics

IT 199113-98-9P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of thiazolidinediones and analogs as antidiabetics)

RN 199113-98-9 CAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazoliny)methoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

